Pollution Prevention

A DISCUSSION PAPER

APRIL 1997

NOVA SCOTIA

Department of the Environment

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Welcome

"an ounce of prevention outweighs a pound of cure."

THIS discussion document is all about ownership. In its infancy, the environmental movement focused on repairing the problems created in the past. In the 1970's government rightly took the lead in cleaning up these problems. However, the environmental movement has matured to encompass all components of society. Government, business, and the public have an obligation to help correct the environmental mistakes of the past, and prevent future problems by learning from the lessons of history.

Pollution Prevention is simply an environmental update of the old saying "an ounce of prevention outweighs a pound of cure." It was once accepted that we could have either economic growth or environmental protection. Nova Scotia has proven the emptiness of that myth. Today, environmental industries are a beacon showing the way to a sustainable future. The business community now accepts that pollution prevention is as good for the bottom line as it is for the environment.

The preservation of natural resources and human ones will be even more tightly linked in the new century. Pollution Prevention will provide environmental and economic dividends. Increasing efficiency, reducing costs and cutting energy consumption will also lead to an enhanced and protected environment.

We hope this discussion paper will inspire a greater sense of stewardship among all Nova Scotians.

Yours truly

Hon. Wayne Adams
Minister of the Environment
Province of Nova Scotia

Purpose

THE Nova Scotia Department of the Environment intends to introduce a new program of pollution prevention in 1997.

The purpose of this discussion paper is twofold: (i) to introduce the concept of pollution prevention and (ii) to involve stakeholders at an early stage so that their contributions can affect the pollution prevention initiative.

The Nova Scotia Department of the Environment considers the development and implementation of a pollution prevention program to be the next step in the evolution of environmental management within the Province of Nova Scotia. Since the 1970s pollution control has largely been based on costly "end of pipe" controls that limit the nature and quantity of discharges to the air, land, and water. Today both government and industry recognize that it is necessary to move up the pipe to avoid, eliminate, and reduce pollution at source. This approach provides environmental protection while helping industry improve their production efficiency and competitive position.

Pollution prevention is viewed as a responsibility that is shared among governments, communities, individuals, and the private sector. In order to begin this collective approach the department intends to use this document as the basis for discussions with members of the public and the business community. It outlines the department's views on the definition of pollution prevention. The document also provides suggestions on possible program delivery and sectors that would benefit most from this new approach to environmental management. The outcome of this discussion process, which will be completed by the fall of this year, will be a detailed plan for the implementation of this program.

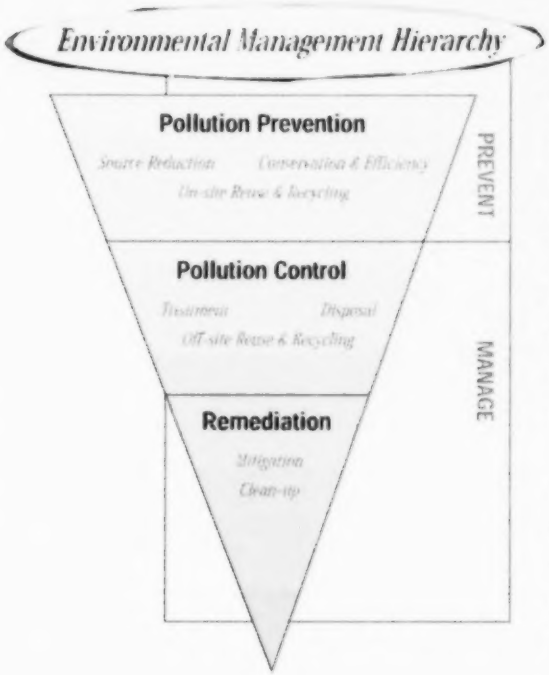
We Want to Hear from You

Your comments on this document are welcome. Please send them to the address shown on the last page.

There are two ways to deal with pollution: manage it or prevent it.

What is Pollution Prevention?

POLLUTION management has traditionally been the focus for environmental protection agencies. It has been carried out using rules and programs that either limit pollutant releases to the environment (pollution control) or restore the environment after it has been altered or damaged (remediation). While this approach has measurably advanced environmental protection, it has increasingly come under criticism as having two weaknesses. It is largely reactive, focusing on measures to address problems after they occur. This in turn has contributed to the second weakness, cost. Business costs associated with waste treatment, recovery, and disposal have risen dramatically since the mid-1980s. Public sector costs associated with the application and enforcement of pollution and waste management standards have experienced similar upward pressure. Finally, in instances where clean up is not realistically achievable, the costs to the environment can be incalculable.



Pollution prevention addresses these two weaknesses head on by shifting the emphasis from controlling pollution once it has been created to preventing its creation in the first place.

Pollution prevention is defined as "the use of processes, practices, materials, products, or energy that avoid or minimize the creation of pollutants and wastes."[1] It includes such things as reduced raw material consumption, materials substitution, environmentally responsible

1 Canadian Council of Ministers of the Environment (CCME).

procurement, equipment and process modifications, on-site reuse and recycling, and improved maintenance practices. In other words, pollution is avoided, eliminated, or reduced at the source rather than being treated after it has been produced.

Proactive Management
Pollution prevention planning prevents pollution through the avoidance, elimination, or reduction at source.

Pollution prevention provides a means to directly link environment and the economy by simultaneously enhancing environmental protection and economic opportunity. Environmental benefits are realized through such measures as reducing the use of raw materials, which has a positive impact on the consumption of both renewable and non-renewable resources. In addition, the elimination or reduction of pollutant discharges has obvious environmental benefits. Businesses gain a competitive advantage, they improve production efficiency and lower their operating costs because they are able to spend less on pollution control and clean up.

These significant benefits have encouraged the Nova Scotia Department of the Environment to establish pollution prevention as the preferred Nova Scotia strategy for protecting the environment from pollution. This does not mean, however, that the department will neglect other avenues of environmental protection that indirectly promote pollution prevention. Other strategies, in order of preference, are off-site reuse and recycling, treatment/control, disposal/destruction, and remediation/cleanup.

Program Delivery

THE Department of the Environment will implement the pollution prevention program through cooperative partnerships with industry, government, and communities. A new section within the Resource Management and Environmental Protection Division will be established and dedicated to the effective delivery of the program. This section will assume responsibility for tracking progress and showcasing the tangible economic and environmental benefits of the pollution prevention philosophy.

To inform Nova Scotians of the benefits of this approach, we will continually prepare and distribute a wide range of information on pollution prevention. Pollution prevention success stories will be documented to show Nova Scotian industries and residents the advantages of this progressive approach. Specific projects designed to focus attention on the benefits of pollution prevention will include a recognition program for leading industries and communities. Codes of practice and sectoral pollution prevention plans will be developed to help industry and communities to more easily apply the principles of pollution prevention. Progress on implementing the program, including the number of participants and their degree of success, will be included in the department's State of the Environment reports. Demonstration projects will provide all sectors of the economy with real-world examples of what can be accomplished.

The Pollution Prevention Challenge

Pollution prevention in Nova Scotia will involve partnerships between the Department of the Environment and the private sector, other government departments, and communities. We are actively seeking partners who would like to participate in this exciting opportunity. We challenge interested industries, businesses, and their associations, communities, community groups, and government departments to become involved.

The department proposes to commence this process by introducing a range of initiatives directed at business, government, and communities.

Private Sector

HAVING industry integrate pollution prevention into their long-range strategic business plans so that their environmental management systems may take full advantage of potential opportunities is one of our principal objectives.

We acknowledge that achieving this objective will involve working closely with all levels of the private sector. We also recognize the need to differentiate between the needs and requirements of small business and large industry when working with this very important community.

Within the private sector, the Nova Scotia pollution prevention program will promote initiatives that are aimed at production efficiency, reduced operating costs, and reduced environmental liabilities, while at the same time improving community, employee, and environmental health. We want to see linear environmental management approaches replaced with ones that are cyclical in nature. We want to see industry move away from the disposal of residuals within the environment and move toward operating practices that minimize or avoid the formation of wastes or maximize the recycling of by-products within the production process.

Product stewardship is another area that deserves considerable attention. We will work with the private sector toward the introduction of more initiatives such as Nova Scotia's recently introduced tire recycling program. There is a need for such efforts in areas that are not currently addressed in the province's solid waste management strategy.

With large industry we will work with companies that are willing to pilot volunteer pollution prevention programs. We want interested companies to undertake comprehensive environmental reviews of their operations, identify and prioritize the recommendations that will be forthcoming from these reviews, and implement those recommendations that make good environmental and economic sense. We want to ensure that these programs are designed to complement the new environmental management systems that are gaining popularity, e.g., the ISO 14000 standards. We also want to ensure that community participation is an integral component of the environmental review process. We feel that this will result in an enhanced corporate image and a better community relationship.

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Private Sector Initiatives

Within the private sector the Nova Scotia pollution prevention program will promote initiatives that are aimed at production efficiency, reduced operating costs, and reduced environmental liabilities, while at the same time improving community, employee, and environmental health.

Small business will be addressed in a different manner. Initially, we propose to consult with the small business community through their business associations. Given the large number of small businesses in the province, we feel that this approach is the most appropriate way to expeditiously involve a significant percentage of these operations in the pollution prevention program.

Achieving our private sector objective will involve a concerted effort from all participants. In order to commence this process, several options are being contemplated. These are as follows:

- *Introduce a more effective and efficient approach to environmental approvals that will streamline and possibly replace the cumbersome command and control approval process.*

  Pollution prevention programs provide an opportunity for government to carefully examine the potential to ultimately eliminate the environmental approval process that currently exists in Nova Scotia. The replacement of approvals with approved pollution prevention programs can achieve the same objective while at the same time realizing better environmental management through pollution prevention's continual improvement philosophy.

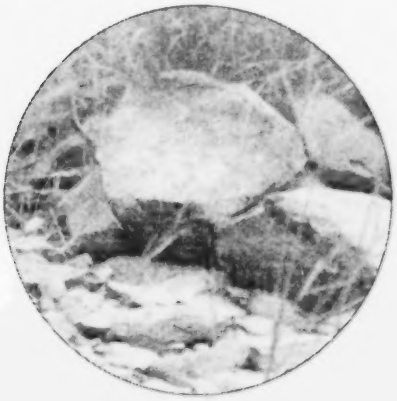
- *Solicit interest from large industry to undertake pilot projects in the development of the pollution prevention planning process.* At the outset a limited number of industries will be contacted to identify potential partners in the development of pilot pollution prevention programs. This cooperative initiative will be used to establish a generic "large industry" pollution prevention planning guide, which will identify incentives, respective roles of government and industry, planning procedure, outcome measurement, and relationship to ISO 14000.

- *Enter into agreements with associations that represent small businesses in order to develop codes of practice and certification programs that meet pollution prevention standards.*

  Codes of practice will provide small businesses with the information that they need to be able to reap the benefits of pollution prevention initiatives. Often small businesses do not have nor can they afford to hire the expertise that is necessary to develop detailed pollution prevention programs. Working with industry associations is presented here as one method of overcoming these resource limitations.

Public Sector

IN ORDER to initiate a comprehensive pollution prevention program government will have to adopt a leadership role. To this end, one of the principle objectives of the public sector program will be to promote the integration of pollution prevention planning into activities, policies, and programs of government.



To achieve this objective it will be necessary to champion a range of government-wide initiatives. These initiatives must not only support existing programs, but must prompt new actions that establish preventive environmental care as a priority for all departments. In this regard, the following will be promoted throughout the Nova Scotia government:

- *An "Environmentally Responsible Procurement Policy".*

  This policy, which was recently approved by Cabinet, is viewed as fundamental to the success of the pollution prevention initiative within government. We will promote this initiative by developing and maintaining a database that identifies available environmental products. Additional support will be provided through education, periodic assessment, and training to ensure that government purchasing decisions do, in fact, meet the intent of this policy.

- *Policies and programs aimed at ensuring that all buildings in which government conducts business are operated in a pollution prevention friendly manner.*

  Actions in this area provide an excellent opportunity for government to lead by example. As an initial step, we propose to examine similar programs that have been implemented elsewhere so that Nova Scotia may benefit from the experiences of other jurisdictions. Coupled with this would be a program to show case our

Communities

achievements so that others, within both the private and public sectors, may benefit from our initiatives. Open for consideration would be everything from introducing energy-efficient lighting and adopting the federal green building initiative, to providing bicycle racks for use by both employees and the public.

- *An enhanced solid waste reduction initiative.*

Nova Scotia has a legislative commitment to reduce solid waste by 50% by the year 2000. Within government, the introduction of a "Green Workplace Program" will see a diversion of 60% of this waste from the waste stream, with 80% worker participation by 1999.

- *The introduction of pollution prevention guidelines throughout health care facilities.*

The minimization of pollutant loadings from hospitals to municipal sewers and solid waste management facilities is an important waste management consideration. With this in mind, source reduction opportunities in all areas of these facilities will be explored. Included will be laboratories, housekeeping, pharmacies, infectious waste/ incinerators, radiology, and radiation therapy.

POLLUTION **prevention must be seen as a way of life for all Nova Scotians.** In order to facilitate this community sector goal, government will encourage and facilitate efforts by individuals and community groups to become involved in this new approach to environmental management. As a start, it is proposed that the department organize the development of selected community level pollution prevention projects. These projects will have a province-wide focus and would involve individuals and community groups from various backgrounds and interests. These projects could serve as models for others that may follow. The following are proposed at this time:

- *Develop a community pollution prevention guide that will assist individuals and community groups in establishing their own pollution prevention programs.*

Working with municipalities and interest groups to identify achievable goals and opportunities for partnering with both business interests and government is seen as an essential first step in promoting participation in this program. A "how to" guide will be developed to provide communities with the information that they need to get started.

- *Develop a domestic pesticide and integrated pest management awareness program for home owners in which alternative methods for the control of specific pests are included.*

The pesticide issue is one that has been of concern for quite some time. A considerable body of information exists on this subject. This project would see a compilation of this information together with recommendations for practical measures to reduce household reliance on chemical pesticides.

- *Produce a household pollution prevention audit and resource guide that will include information on source reduction, recycling, composting, the safe storage and handling of household hazardous wastes, substitutes for toxic household chemicals, and available information sources and services.*

This is seen as an essential tool for any successful community participation in pollution prevention. The positive impact that a pollution prevention friendly community can have on the overall success of our pollution prevention program is well recognized.

Conclusion

BASED on the principles of the protection of life, support for ecosystems, the promotion of the wise and efficient use of resources, and the enhancement of economic opportunity for Nova Scotians, the pollution prevention process promises to firmly link environment and the economy. Progress in achieving this linkage will require consensus, commitment, and cooperation. We urge all Nova Scotians to participate in this effort to ensure our province continues on the path to a more sustainable future.

We welcome your suggestions and questions. The Nova Scotia Department of the Environment has carefully considered each of the possible products and outcomes set out in this document, however, they are meant for discussion. Your comments on our proposed initiatives and your recommendations for changes or additions will all be carefully considered.

Please send your comments to

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